

# LCD Colour TV

Operating Instructions

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Operating the TV	
Using Optional Equipment	
Using MENU Functions	
Additional Information	

# **BRAVIA**

#### Introduction

Thank you for choosing this Sony product. Before operating the TV, please read this manual thoroughly and retain it for future reference.

The illustrations used in this manual are of the KLV-32EX300 unless otherwise stated.

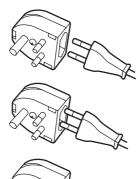
#### **Notice for customers in South Africa**

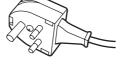
The Euro/South Africa converter plug should be fitted as follows.

- 1 Insert the power supply or CEE7 plug in to the converter plug.
- 2 Use an appropriate screwdriver to attach the screw tightly without damaging the screw head.
- 3 TEST: Grip the converter plug, and pull the VDE cord set/transformer to ensure it is fully secure, if not then increase the torque setting and further tighten.

  Re-test.

The converter plug is now ready for use.





#### Notice for customers in India

Attach the supplied plug adaptor.



#### **Trademark information**

- HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
- "BRAVIA" and BRAVIA are trademarks of Sony Corporation.



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Before operating the TV, please read "Safety information" (page 8). Retain this manual for future reference.

# Start-up Guide

## Checking the accessories

**AC power cord** (For KLV-40/32EX600/ KLV-55/46EX500/KLV-46EX400)

Cable holder (1) (For KLV-40/32EX600/ KLV-40/32NX500/KLV-32/26NX400)

Stand (1) and screws (8) (For KLV-40/32EX600/ KLV-40/32EX500/KLV-40/32NX500/ KLV-32/26NX400)

**Stand (1) and screws (7)** (For KLV-40/32EX400/ KLV-32/26EX300)

Stand (1) and screws (6) (For KLV-22EX300) Stand (1) and screws (4) (For KLV-55/46EX500/ KLV-46EX400)

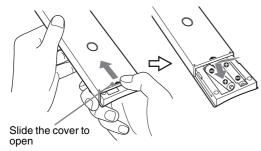
Remote RM-GA018 (1) (For KLV-40/32EX600/ KLV-55/46/40/32EX500/KLV-40/32NX500/ KLV-32/26NX400)

Remote RM-GA019 (1) (For KLV-46/40/32EX400/ KLV-32/26/22EX300)

Size AAA batteries (R03 type) (2)

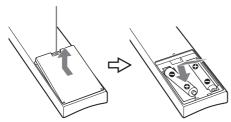
#### To insert batteries into the remote

KLV-40/32EX600/KLV-55/46/40/32EX500/ KLV-40/32NX500/KLV-32/26NX400



#### ► KLV-46/40/32EX400/KLV-32/26/22EX300

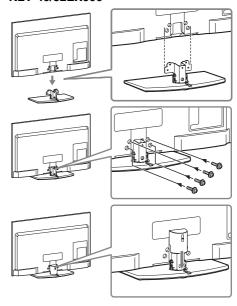
Push and lift the cover to open



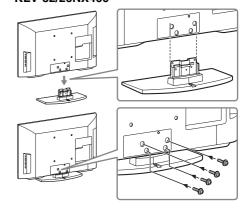
## 1: Attaching the stand

 Refer to the supplied stand leaflet for proper attachment for some TV models.

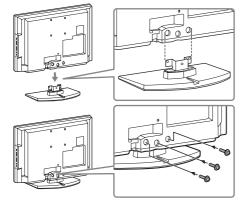
#### ► KLV-40/32EX600



 KLV-55/46/40/32EX500/KLV-46/40/32EX400/ KLV-32/26EX300/KLV-40/32NX500/ KLV-32/26NX400



#### ► KLV-22EX300

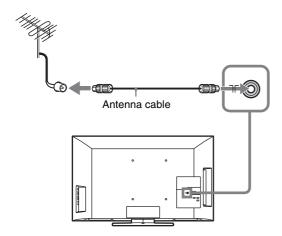


- Fix the TV to the stand according to the arrow marks
   that guide the screw holes using the supplied screws.
  - This TV is very heavy, so two or more people should place the TV onto the stand.
  - If using an electric screwdriver, set the tightening torque at approximately 1.5 N·m (15 kgf·cm).
  - Ensure the AC power cord is away from screw holes during stand installation to avoid damage to the AC power cord.

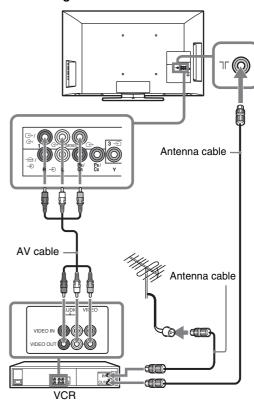
# 2: Connecting an antenna/ cable/VCR

Connecting cables are not supplied.

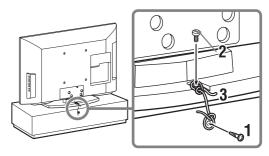
#### Connecting an antenna/cable



#### Connecting an antenna/cable and VCR

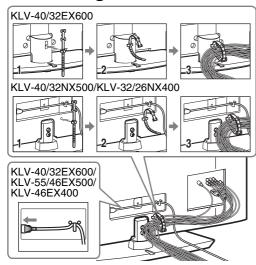


# 3: Preventing the TV from toppling over



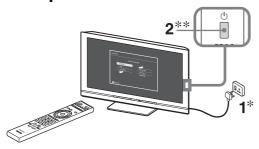
- **1** Install a wood screw (4 mm in diameter, not supplied) in the TV stand.
- 2 Install a machine screw (M4  $\times$  16, not supplied) into the screw hole of the TV.
- **3** Tie the wood screw and the machine screw with a strong cord (not supplied).
- An optional Sony support belt kit is used to secure the TV. Contact your nearest Sony service centre to purchase a kit. Have your TV model name ready for reference.

## 4: Bundling the cables

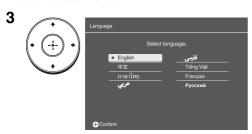


- Do not bundle the AC power cord together with other cables.
  - The illustration may differ from that of the actual rear panel, and the AC power cord may already be connected, depending on the screen size.

# 5: Performing the initial set-up



- \* The shapes of AC power plug and AC power outlet differ depending on the region.



Follow the instructions on the screen.

**"Location":** Select "Home" for the best TV settings to use the TV in the home.

- "Programme Sorting": If you want to change the order of channels, follow the steps in "Programme Sorting" (page 22). Press **MENU** to exit.
- You can also tune channels manually (page 22).
  - · Language options vary depending on model.

## **Watching TV**

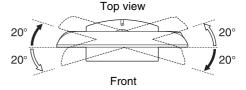
- **1** Press  $\bigcirc$  on the TV to turn on the TV.
- 2 Press the number buttons or **PROG +/-** to select a TV channel.
- **3** Press  $\angle$  +/- to adjust the volume.

# Adjusting the viewing angle of the TV

This TV can be adjusted within the angles shown below.

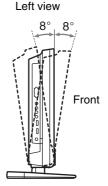
# Adjust the angle left and right (swivel)

KLV-40/32EX600/KLV-55/46/40/32EX500/ KLV-40/32NX500/KLV-32/26NX400

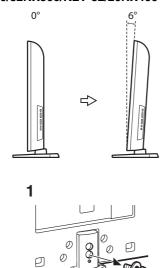


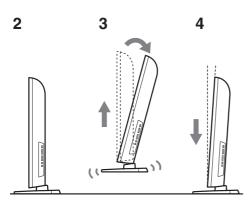
# Adjust the angle back and forth (tilt)

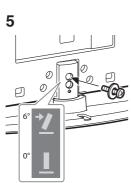
► KLV-22EX300



#### ► KLV-40/32NX500/KLV-32/26NX400



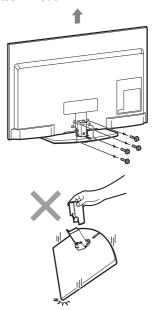




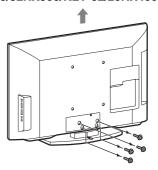
# Detaching the stand from the TV

 $\begin{tabular}{ll} \begin{tabular}{ll} \beg$ 

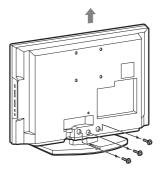
#### ► KLV-40/32EX600



► KLV-55/46/40/32EX500/ KLV-46/40/32EX400/KLV-32/26EX300/ KLV-40/32NX500/KLV-32/26NX400



#### ► KLV-22EX300



## **Safety information**

#### Installation/Set-up

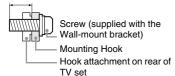
Install and use the TV set in accordance with the instructions below in order to avoid any risk of fire, electrical shock or damage and/or injuries.

#### Installation

- The TV set should be installed near an easily accessible AC power outlet.
- Place the TV set on a stable, level surface to avoid it from falling down and cause personal injury or damage to the TV.
- Only qualified service personnel should carry out wall installations.
- For safety reasons, it is strongly recommended that you use Sony accessories, including:
  - KLV-40/32EX600/ KLV-55/46/40/32EX500/ KLV-46/40/32EX400/ KLV-32EX300/KLV-40/32NX500: Wall-mount bracket SU-WL500 or SU-WL50B
  - KLV-32NX400: Wall-mount bracket SU-WL500
  - KLV-26/22EX300/KLV-26NX400: Wall-mount bracket SU-WL100
- Be sure to use the screws supplied with the Wall-mount bracket when attaching the mounting hooks to the TV set. The supplied screws are designed as indicated by illustration when measured from the attaching surface of the mounting hook. The diameter and length of the screws differ depending on the Wall-mount bracket model.

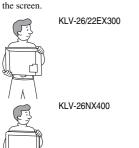
Use of screws other than those supplied may result in internal damage to the TV set or cause it to fall, etc.

Min. ~ 26 TV: 6.5 ~ 10mm 32 TV ~ Max.: 8 ~ 12mm



#### **Transporting**

- Before transporting the TV set, disconnect all cables.
- Two or more people are needed to transport a large TV set.
- When transporting the TV set by hand, hold it as shown below. Do not put stress on the LCD panel and the frame around the screen.





KLV-40/32EX600/ KLV-32NX500/ KLV-32NX400



KLV-55/46/40/32EX500/ KLV-46/40/32EX400/ KLV-32EX300/ KLV-40NX500



KLV-40/32EX600/ KLV-32NX500/ KLV-32/26NX400



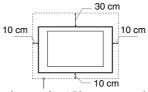
KLV-55/46/40/32EX500/ KLV-46/40/32EX400/ KLV-32/26/22EX300/ KLV-40NX500

- When lifting or moving the TV set, hold it firmly from the bottom.
- When transporting the TV set, do not subject it to jolts or excessive vibration.
- When transporting the TV set for repairs or when moving, pack it using the original carton and packing material.

#### Ventilation

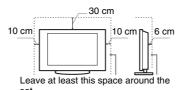
- Never cover the ventilation holes or insert anything in the cabinet.
- Leave space around the TV set as shown below.
- It is strongly recommended that you use a Sony wall-mount bracket in order to provide adequate air-circulation.

#### Installed on the wall



Leave at least this space around the set.

#### Installed with stand

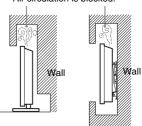


To ensure proper ventilation and prevent the collection of dirt or dust:

- Do not lay the TV set flat, install upside down, backwards, or sideways.
- Do not place the TV set on a shelf, rug, bed or in a closet.
- Do not cover the TV set with a cloth, such as curtains, or items such as newspapers, etc.

 Do not install the TV set as shown helow

Air circulation is blocked.



#### **AC** power cord

Handle the AC power cord and outlet as follows in order to avoid any risk of fire, electrical shock or damage and/or injuries:

- The shape of AC power plug, which is supplied with the TV set, varies depending on the regions. Be sure to connect the appropriate supplied AC power cord with the plug that fits into the AC power outlet.
- Use only Sony supplied AC power cords, not those of other brands.
- Insert the plug fully into the AC power outlet.
- Operate the TV set on a 110-240 V AC supply only (South Africa and Tunisia only: 220-240 V AC).
- When wiring cables, be sure to unplug the AC power cord for your safety and take care not to catch your feet on the cables.
- Disconnect the AC power cord from the AC power outlet before working on or moving the TV set.
- Keep the AC power cord away from heat sources.
- Unplug the AC power plug and clean it regularly. If the plug is covered with dust and it picks up moisture, its insulation may deteriorate, which could result in a fire.

#### **Notes**

- Do not use the supplied AC power cord on any other equipment.
- Do not pinch, bend, or twist the AC power cord excessively. The core conductors may be exposed or broken.
- · Do not modify the AC power cord.
- Do not put anything heavy on the AC power cord.
- Do not pull on the AC power cord itself when disconnecting the AC power cord.
- Do not connect too many appliances to the same AC power outlet.
  - Do not use a poor fitting AC power outlet.

#### **Prohibited Usage**

Do not install/use the TV set in locations, environments or situations such as those listed below, or the TV set may malfunction and cause a fire, electrical shock, damage and/or injuries.

#### Location:

Outdoors (in direct sunlight), at the seashore, on a ship or other vessel, inside a vehicle, in medical institutions, unstable locations, near water, rain, moisture or smoke.

#### **Environment:**

Places that are hot, humid, or excessively dusty; where insects may enter; where it might be exposed to mechanical vibration, near flammable objects (candles, etc). The TV set shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the TV.

#### Situation:

Do not use when your hands are wet, with the cabinet removed, or with attachments not recommended by the manufacturer. Disconnect the TV set from AC power outlet and antenna during lightning storms.

#### **Broken pieces:**

- Do not throw anything at the TV set. The screen glass may break by the impact and cause serious injury.
- If the surface of the TV set cracks, do not touch it until you have unplugged the AC power cord. Otherwise electric shock may result.

#### When not in use

- If you will not be using the TV set for several days, the TV set should be disconnected from the AC power for environmental and safety reasons.
- As the TV set is not disconnected from the AC power when the TV set is just turned off, pull the plug from the AC power outlet to disconnect the TV set completely.
- However, some TV sets may have features that require the TV set to be left in standby to work correctly.

#### For children

- Do not allow children to climb on the TV set.
- Keep small accessories out of the reach of children, so that they are not mistakenly swallowed

# If the following problems occur...

**Turn off** the TV set and unplug the AC power cord immediately if any of the following problems occur.

Ask your dealer or Sony service centre to have it checked by qualified service personnel.

#### When:

- AC power cord is damaged.
- Poor fitting of AC power outlet.
- TV set is damaged by being dropped, hit or having something thrown at it.
- Any liquid or solid object falls through openings in the cabinet.

#### About LCD Monitor Temperature

When the LCD Monitor is used for an extended period, the panel surrounds become warm. You may feel hot when touching there by the hand.

#### **Precautions**

#### Viewing the TV

- View the TV in moderate light, as viewing the TV in poor light or during long period of time, strains your eyes.
- When using headphones, adjust the volume so as to avoid excessive levels, as hearing damage may result.

#### **LCD Screen**

- Although the LCD screen is made with high-precision technology and 99.99% or more of the pixels are effective, black dots may appear or bright points of light (red, blue, or green) may appear constantly on the LCD screen. This is a structural property of the LCD screen and is not a malfunction.
- Do not push or scratch the front filter, or place objects on top of this TV set. The image may be uneven or the LCD screen may be damaged.
- If this TV set is used in a cold place, a smear may occur in the picture or the picture may become dark. This does not indicate a failure. These phenomena disappear as the temperature rises.
- Ghosting may occur when still pictures are displayed continuously. It may disappear after a few moments.
- The screen and cabinet get warm when this TV set is in use. This is not a malfunction.
- The LCD screen contains a small amount of liquid crystal. Some fluorescent tubes used in this TV set also contain mercury (except for LED backlight LCD TV).
   Follow your local ordinances and regulations for disposal.

# Handling and cleaning the screen surface/cabinet of the TV set

Be sure to unplug the AC power cord connected to the TV set from AC power outlet before cleaning.

To avoid material degradation or screen coating degradation, observe the following precautions.

- To remove dust from the screen surface/ cabinet, wipe gently with a soft cloth. If dust is persistent, wipe with a soft cloth slightly moistened with a diluted mild detergent solution.
- Do not spray water or detergent directly on the TV set. It may drip to the bottom of the screen or exterior parts, and may cause a malfunction.
- Never use any type of abrasive pad, alkaline/acid cleaner, scouring powder, or volatile solvent, such as alcohol, benzene, thinner or insecticide. Using such materials or maintaining prolonged contact with rubber or vinyl materials may result in damage to the screen surface and cabinet material.
- Periodic vacuuming of the ventilation openings is recommended to ensure to proper ventilation.
- When adjusting the angle of the TV set, move it slowly so as to prevent the TV set from moving or slipping off from its table stand.

#### **Optional Equipment**

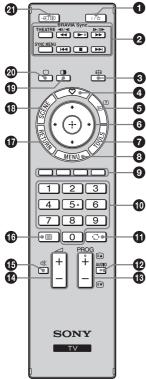
Keep optional components or any equipment emitting electromagnetic radiation away from the TV set. Otherwise picture distortion and/or noisy sound may occur.

# (Caution about handling the remote control) Notes

- Observe the correct polarity when inserting batteries.
- Do not use different types of batteries together or mix old and new batteries.
- Dispose of batteries in an environmentally friendly way. Certain regions may regulate the disposal of batteries. Please consult your local authority
- Handle the remote with care. Do not drop or step on it, or spill liquid of any kind onto it.
- Do not place the remote in a location near a heat source, a place subject to direct sunlight, or a damp room.

# Operating the TV

#### Overview of the remote



# The number 5, ▶, PROG + and AUDIO buttons have tactile dots. Use the tactile dots as references when operating the TV.

#### **1**/<sup>()</sup> − TV standby

Press to turn the TV on or to switch to standby mode.

#### BRAVIA Svnc

►/■/◄</▶>/!◄</>>
I You can operate the BRAVIA Sync-compatible equipment that is connected to the TV. Some other buttons on the remote control may also operate BRAVIA Sync equipment.

**SYNC MENU:** Press to display the BRAVIA Sync Menu and then select connected HDMI equipment from "HDMI Device Selection".

The following options can be selected from BRAVIA Sync Menu:

"Device Control": Use the "Device Control" menu to operate equipment that is compatible with Control for HDMI. Select options from "Home (Menu)", "Options" and "Content List" to operate the equipment.

"Speaker": Selects "TV Speaker" or "Audio System" to output the TV's sound from the TV speakers or connected audio equipment.

"TV Control": Use the "TV Control" menu to operate the TV from the "MENU" or "TOOLS" menu.

"Return to TV": Selects this option to return to TV programme.

**THEATRE:** You can set Theatre mode to on or off. When Theatre mode is set to on, the optimum sound quality (if the TV is connected with an audio system using an HDMI cable) and picture quality for film-based contents are automatically set.

• If you turn the TV off, Theatre mode is also turned off.

- When you change the "Scene Select" setting, Theatre mode turns off automatically.
- "Control for HDMI" (BRAVIA Sync) is only available with the connected Sony
  equipment that has the BRAVIA Sync or BRAVIA Theatre Sync logo or is
  compatible with Control for HDMI.

#### ⊕ – Wide Mode

Changes the picture size. Press repeatedly to select the desired wide mode (page 11).

#### 

Press to display or exit the Favourite list that you have specified. You can store up to 10 channels and/or external inputs in your Favourite list.

#### 6 ⊕/? - Info / Text reveal

- Displays information. Press once to display information about the programme/ input you are viewing. Press again to remove the display from the screen.
- In Text mode: Reveals hidden information (e.g. answers to a quiz).

#### 

- · Selects or adjusts items.
- · Confirms selected items.
- When playing a photo file: Press ⇔ to select the previous file. Press ⇒ to select the next file.

When playing a music/video file: Press  $\oplus$  to pause/start the playback. Press and hold  $\Leftrightarrow$ / $\Leftrightarrow$  to fast forward/fast reverse, then release the button at the point where you want to resume playback. Press  $\diamondsuit$  to start playback from the beginning of the current file. Press  $\diamondsuit$  to go to the next file.

#### 7 TOOLS

Press to display a list that contains shortcuts to some setting menus. The listed options vary depending on the current input and content.

#### 8 MENU

Displays or cancels the menu.

#### Coloured buttons

When the coloured buttons are available, an operation guide appears on the screen.

#### • Number buttons

- Selects channels. For channel numbers 10 and above, enter the next digit quickly (page 22).
- In Text mode: Enters the three digit page number to select the page.

#### ⊕ Previous channel

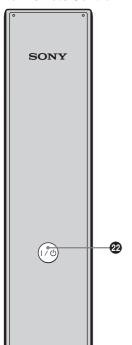
Returns to the previous channel or input watched (for more than 15 seconds).

#### ♠ AUDIO – Dual Sound (page 20)

#### 

- Selects the next (+) or previous (<u>-</u>) channel.
- In Text mode: Selects the next ( ) or previous ( ) page.

#### Rear of Remote Control



∠ +/- - Volume

Adjusts volume.

Press to mute the sound. Press again to restore the sound.

⊕ – Text

In Text mode: Displays Text broadcast. Each time you press , the display changes cyclically as follows:

Text  $\rightarrow$  Text over the TV picture (mix mode)  $\rightarrow$  No Text (exit the Text service)

- Returns to the previous screen of any displayed menu.
- When playing a photo/music/video file: Press to stop the playback (the display returns to the file or thumbnail view).

#### SCENE – Scene Select mode

Press to display the "Scene Select" menu. When you select the desired scene option, the optimum sound and picture quality for selected scene are automatically set. The options you can select may vary. Unavailable options are greyed out. "Cinema": Delivers theatre-like picture and dynamic sound.

- "Sports": Delivers realistic picture with surround sound like in a stadium.
- "Photo": Delivers picture that reproduces the texture and colour of a printed
- "Music": Delivers dynamic and clear sound effects like at a concert.
- "Game": Delivers the best picture and sound quality for fullest game playing enjoyment.
- "Graphics": Delivers clearer detailed pictures to reduce fatigue for prolonged viewing.
- "General": Current user settings.
- "Auto": Delivers optimum picture and sound quality which is automatically set according to input source. There may not be any effect depending on the connected equipments.
- When you set Theatre mode (page 10) to on, the "Scene Select" setting switches to "Cinema" automatically.
- Twin Picture / PIP (page 15)

Exit Text mode, or switches to a TV display when displaying external input.

- ② → / ⊕ Input select / Text hold
  - Displays the connected equipment list and selects the input source (page 14).
  - In Text mode: Holds the current page.

Press to turn the TV on or to switch to standby mode. Available models: KLV-40/32EX600/KLV-55/46/40/32EX500/ KLV-40/32NX500/KLV-32/26NX400

#### To change the Wide Mode

#### For TV, Video, Component or HDMI (except PC input)

Wide Zoom*	Enlarges the centre portion of the
	picture. The left and right edges of the picture are stretched to fill the
	16:9 screen.
Normal	Displays the 4:3 picture in its original
	size. Side bars are shown to fill the 16:9 screen.
Full	Stretches the 4:3 picture horizontally
Full	Stretches the 4:3 picture horizontally to fill the 16:9 screen.
Full Zoom*	1

<sup>\*</sup> Parts of the top and bottom of the picture may be cut off.

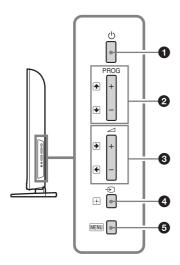
 You cannot select "Normal" for HD signal source pictures.

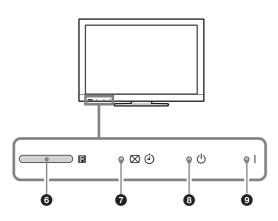
#### For PC or HDMI PC Input (PC timing)

Normal	Displays the picture in its original pixel size. Bars are shown at the top, bottom, and both sides for small picture.
Full 1	Stretches the original picture to fill the screen vertically, keeping its original horizontal-to-vertical aspect ratio.
Full 2	Stretches the Full 1 picture horizontally to fill the 16:9 screen.

Some options may not be available depending on the PC input signal.

#### Overview of the TV buttons and indicators





#### 1 ( - Power

Press to turn the TV on or to switch to standby mode.

 To disconnect the TV from the AC power completely, pull the plug from the AC power outlet.

#### 2 PROG +/-/1 / ₺

- Selects the next (+) or previous (-) channel.
- In TV menu: Moves through the options up (♠) or down (♠).

#### 3 ∠ +/-/→/←

- Increases (+) or decreases (-) the volume.
- In TV menu: Moves through the options right (♠) or left (♠).

#### 4 → / - Input select / Enter

- Displays the connected equipment list and selects the input source (page 14).
- In TV menu: Selects the menu or option, and confirms the setting.

#### 6 MENU

Displays or cancels the menu.

#### 6 **■** – Remote sensor

Receives IR signals from the remote.

#### **7** ⊠/⊕ – Picture Off / Timer indicator

- Lights up in green when you select "Picture Off" (page 25).
- Lights up in amber when you set the timer (page 24) or "Picture Frame" (page 17).

#### **❸** <sup>(1)</sup> – Standby indicator

Lights up in red when the TV is in standby mode.

#### **⑨** I – Power indicator

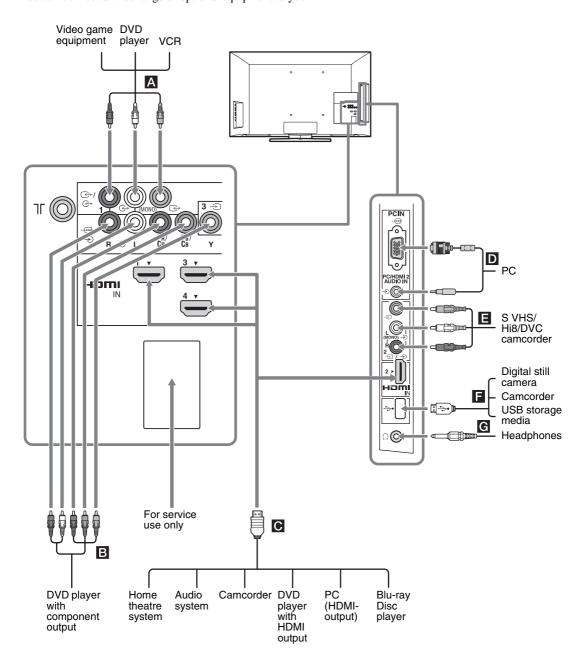
- · Lights up in green when the TV is turned on.
- Flashes while the remote is being operated.

 Make sure that the TV is completely turned off before unplugging the AC power cord. Unplugging the AC power cord while the TV is turned on may cause the indicator to remain lit or may cause the TV to malfunction.

# **Using Optional Equipment**

# **Connecting optional equipment**

You can connect a wide range of optional equipment to your TV.



# Viewing pictures from the connected equipment

Turn on the connected equipment, then press  $- \bigcirc / \bigcirc$  to display the connected equipment list. Press  $\triangle / \bigcirc$  to select the desired input source, then press  $\oplus$ . (The highlighted item is selected if 2 seconds pass without any operation after pressing  $\triangle / \bigcirc$ .) When the input source is set to "Skip" in the "Video Labels" under the "AV Set-up" menu (page 24), that input is greyed out in the list.

\* Press → 1/± on the TV to display the connected equipment list and select the desired input source. You can also press • Press → 1/± on the TV to display the connected equipment list and select the desired input source. You can also press • Press → 1/± to select the desired input source. Then wait for 2 seconds to display the selected input source.

Jacks/	Description
Input symbol on screen	
AE ⊕1 or ⊕2, and ⊕1 or ⊕2	Connect to the video jack $\bigcirc$ 1 or $\bigcirc$ 2, and the audio jacks $\bigcirc$ 1 or $\bigcirc$ 2. If you connect mono equipment, connect to the L(MONO) jack $\bigcirc$ 1 or $\bigcirc$ 2.
→ Video 1 or	When using the video jack → 1 and audio jack → 1 as output jacks, select "Output" in the "Video 1 Input/Output" menu (page 24).
-⊕ Video 2	Connect to the video output jack ← 1 to record the image from the TV. Connect to the audio output jacks ← 1 to record the sound from the TV on DVD recorder or VCR. To turn off the sound of the TV speakers, set "Speaker" to "Audio System" (page 20).
	<ul> <li>The monitor output jacks cannot support Component, HDMI and PC signals source pictures, also digital audio signal for sound.</li> </ul>
B -⊕/-⊕ or -⊕3	Connect to the component jacks and the audio jacks ——/—. For better picture quality, component connection is recommended if your DVD player has a
⊕ Component or ⊕ Video 3	component video output. When using the component video jack — as the video jack — 3, select "Video 3" in the "Video 3/Component Input" menu (page 24).  You cannot use the component video jack — and the video jack — 3 at the same time.
HDMI IN 1, 2, 3 or 4	Connect to the HDMI IN 1, 2, 3 or 4 jack if the equipment has an HDMI jack. The digital video and audio signals are input from the equipment.
<ul><li>→ HDMI 1 or</li><li>→ HDMI 2 or</li><li>→ HDMI 3 or</li></ul>	In addition, when you connect the equipment that is compatible with Control for HDMI, communication with the connected equipment is supported. See page 24 to set up this communication.
⊕ HDMI 4	If the equipment has a DVI jack, connect the DVI jack to the HDMI IN 2 jack through a DVI - HDMI adaptor interface (not supplied), and connect the equipment's audio out jack to the PC/HDMI 2 AUDIO IN jack in the PC IN jacks (the PC/HDMI 2 AUDIO IN jack is used as the audio in jack for both the PC IN and HDMI IN 2 jacks).
	The HDMI jacks only support the following video inputs: 480i, 480p, 576i, 576p, 720p, 1080i, 1080p and 1080/24p.
	<ul> <li>The HDMI jacks can support PC timing in HDMI PC mode. See page 21 for supported PC input signal.</li> <li>Be sure to use only an authorized HDMI cable bearing the HDMI logo. We</li> </ul>
	recommend that you use a Sony HDMI cable (high speed type).
D PC IN -⊕/-€	Connect to the PC IN ← jack and the audio jack ←. It is recommended to use a PC cable with ferrite core.
→ PC	To capie with ferrice core.
Fψ	You can enjoy photo/music/video files stored in a Sony digital still camera, camcorder or USB storage device (page 16).
G ()	Connect to the ∩ jack to listen to sound from the TV on headphones.

# Viewing Twin Picture

You can view two pictures (in Component and HDMI input mode) on the screen simultaneously. Connect the optional equipment (page 13), and make

sure that images from the equipment appear on the screen (page 14).

#### Press .

Two pictures are displayed simultaneously.

Left Window



Right Window

Twin Picture Availability			
In Left Window	In Right Window		
Component HDMI 1/2/3/4 (except PC input mode)	TV programme or Video 1/2/3		

- **2** Press *⇔*/*⇔* to select active picture.
- **3** In right window, you can select the TV channel or video input by pressing TOOLS and select "Sub window".

## To return to single picture mode

Press  $\oplus$ ,  $\bigcirc$ , **RETURN** or select "Single Picture" from Tools menu.



- ✓ You cannot use the component video jack → and the video jack  $\rightarrow$  3 at the same time.
  - You cannot change the size of the pictures.
  - · In Twin Picture mode, as picture size reduced, this may decrease picture smoothness.
- The highlighted picture is audible. You can switch the audible picture by pressing ⇔/⇔.
  - You can also use the Twin Picture feature by selecting "Twin Picture" from the Tools menu.

# Viewing PIP (Picture in Picture)

You can view two pictures (in PC input mode) on the screen simultaneously.

Connect a PC (page 13), and make sure that images from a PC appear on the screen (page 14).

#### 1 Press .

Two pictures are displayed simultaneously.



Sub Window (Location of the sub window can be moved by pressing . ⊹./⊹./⊹.)

PIP Availability			
In Main Window	In Sub Window		
PC HDMI 1/2/3/4 (PC timing)	TV programme or Video 1/2/3		

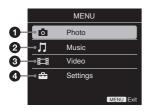
**2** In sub window, you can select the TV channel or video input by pressing **TOOLS** and select "Sub window".

#### To return to single picture mode Press , **RETURN** or select "Single Picture" from Tools menu.

- You cannot display resolutions higher than your TV's display resolution (page 31 and back cover).
  - In PIP mode, as picture size reduced, this may decrease picture smoothness.
- You can switch the audible picture by selecting "Audio Swap" from the Tools menu.
  - You can also use the PIP feature by selecting "PIP" from the Tools menu.

# **Using MENU Functions**

## Navigating through menus



The **MENU** button allows you to access a variety of TV settings and USB media files.

- 1 Press **MENU** on the TV or remote.
- **2** Press  $\triangle/\heartsuit$  to select an option, then press  $\oplus$ .
- **3** Follow the instructions on the screen.
- **4** To exit the menu, press **MENU**.

Menu	Description
1 Photo	You can enjoy photo files via USB devices (page 16).
2 Music	You can enjoy music files via USB devices (page 16).
3 Video	You can enjoy video files via USB devices (page 16).
4 Settings	Displays the "Settings" menu where most of the advanced settings and adjustments are performed. For details about settings, see page 18 to 25.

## Playing back photo/music/video via USB

You can enjoy photo/music/video files stored in a Sony digital still camera or camcorder through a USB cable or USB storage device on your TV.

- **1** Connect a supported USB device to the TV.
- 2 Press MENU.
- **3** Press �/♥ to select "Photo", "Music" or "Video".
- **4** The thumbnail view of file or folder appears.

If more than one USB device is detected, select "Device Selection" from the list of available options and press  $\oplus$ , then press  $\oplus$ / $\oplus$ / $\Leftrightarrow$ /to select a USB device and press  $\oplus$ .

**5** Press �/�/�/\$ to select a file or folder, then press ⊕.

When you select a folder, select a file, then press  $\oplus$ . Playback starts.

#### **Photo Thumbnail View Auto Display**

Allows you to enjoy the feature of "USB Auto Start" (page 23).

- While the TV is accessing the data on the USB device, observe the following:
  - Do not turn off the TV or connected USB device.
  - Do not disconnect the USB cable.
  - Do not remove the USB device.

The data on the USB device may be damaged.

- Sony will not be held liable for any damage to, or loss of, data on the recording media due to a malfunction of any
  connected devices or the TV.
- USB playback is supported for the following photo file formats:
  - JPEG (JPEG format files with the extension ".jpg" and conforming to DCF 2.0 or EXIF 2.21)
- USB playback is supported for the following music file format:
  - MP3 (files with the extension ".mp3" that have not been copyrighted)
- USB playback is supported for the following video file format:
  - MPEG-1
  - MPEG-2 (MPEG-1 Layer II audio codec only)
- The file name and folder name may not display correctly in some cases.

- When you connect a Sony digital still camera, set the camera's USB connection mode to Auto or Mass Storage. For more
  information about USB connection mode, refer to the instructions supplied with your digital camera.
- Check the website below for updated information about compatible USB devices. http://www.sony-asia.com/bravia/flash.html
- Use a USB storage device that is compliant with USB mass storage device class standards.

#### To display a photo — Picture Frame

You can display a photo on the screen for a selected period of time. After that period, the TV automatically switches itself into standby mode.

- 1 Select a photo.
  - See "Playing back photo/music/video via USB" (page 16).
- 2 Press **TOOLS** while the selected photo is displayed, then press ⋄/⋄ to select "Picture Frame Image" and press ⊕.
- **3** Press **RETURN** to return to the thumbnail view.
- **4** Press <-/dy>
  ♦/\$\dagger\$ to select "Picture Frame", then press ⊕.

The TV is switched to Picture Frame mode, and the selected photo is displayed on the screen.

#### To set the duration of displaying a photo

Press **TOOLS**, then select "Duration" and press  $\oplus$ . Then, select the duration, and press  $\oplus$ . The duration appears on the screen.

#### To return to the thumbnail view

Press MENU or RETURN.

- If the photo is selected from a USB device, it must remain connected to the TV.
  - If "Sleep Timer" is activated, the TV will automatically switch into standby mode.

## **Using BRAVIA Sync with Control for HDMI**

The Control for HDMI function enables the TV to communicate with the connected equipment that is compatible with the function, using HDMI CEC (Consumer Electronics Control). For example, by connecting Sony equipment that is compatible with Control for HDMI (with HDMI cables), you can control them together.

Be sure to connect the equipment correctly, and make the necessary settings.

#### Control for HDMI

- Automatically turns the connected equipment off when you switch the TV to standby mode using the remote.
- Automatically turns the TV on and switches the input to the connected equipment when the equipment starts to play.
- If you turn on a connected audio system while the TV is on, the sound output switches from the TV speaker to
  the audio system.
- Adjusts the volume (∠+/-) and mutes the sound (□¾) of a connected audio system.
- You can operate the connected Sony equipment that has the BRAVIA Sync logo by the TV remote. Possible
  operations with BRAVIA Sync buttons, see page 10.
  - Refer to the instruction manual of the equipment for available control.
- If "Control for HDMI" of the TV is set to "On", "Control for HDMI" of the connected equipment is also automatically switched to "On".

#### To make the Control for HDMI settings

The Control for HDMI settings must be set on both the TV side and connected equipment side. See "HDMI Set-up" (page 24) for the TV side settings. For settings on the connected equipment, refer to its operating instructions.

# Settings adjustment

The options you can adjust vary depending on the situation. Unavailable options are greyed out or not displayed.

Picture	
Picture Mode	Sets a picture mode. The options that can be selected differ depending on the "Scene Select" settings.  "Vivid": Enhances picture contrast and sharpness.  "Standard": For standard pictures. Recommended for home entertainment.  "Custom": Allows you to store your preferred settings.  "Game-Standard": Select for standard picture suitable for games.  "Game-Original": Select to adjust the game picture according to your preference.
Reset	Resets all the "Picture" settings except "Picture Mode", "Ambient Sensor" and "Intelligent Picture Plus Set-up" to the factory settings.
Backlight	Adjusts the brightness of the backlight.
Picture	Increases or decreases picture contrast.
Brightness	Brightens or darkens the picture.
Colour	Increases or decreases colour intensity.
Hue	Increases or decreases the green tones and red tones.  • When viewing TV programme or video input, "Hue" is only available for NTSC colour system.
Colour Temperature	Adjusts the whiteness of the picture.  "Cool": Gives the white colours a blue tint.  "Neutral": Gives the white colours a neutral tint.  "Warm 1"/"Warm 2": Gives the white colours a red tint. "Warm 2" gives a redder tint than "Warm 1".  "Warm 1" and "Warm 2" are not available when "Picture Mode" is set to "Vivid".
Sharpness	Sharpens or softens the picture.
Noise Reduction	Reduces the picture noise (snowy picture) in a weak broadcast signal.
MPEG Noise Reduction	Reduces the picture noise in MPEG-compressed video.
Motionflow (For KLV-55/46/40/ 32EX500)	Provides smoother picture movement and reduces picture blur.  "High": Provides smoother picture movement such as for film-based contents.  "Standard": Provides smooth picture movement. Use this setting for standard use.  "Off": Use this setting when the "High" or "Standard" settings result in noise.  Depending on the video, you may not see the effect visually, even if you have changed the setting.
Cinema Drive	Provides improved picture movement when playing BD (Blu-ray Disc), DVD or VCR images taken on film, reducing picture blur and graininess. Select "Auto" or "Auto 1" to represent original film-based content as is, or "Auto 2" for standard use. (Setting items vary depending on the TV model.)  • If the image contains irregular signals or too much noise, "Cinema Drive" is automatically turned off even if "Auto", "Auto 1" or "Auto 2" is selected.

#### **Advanced Settings** Allows you to set "Picture" settings in more detail. These settings are not available when "Picture Mode" is set to "Vivid". "Reset": Resets all the advanced settings except "White Balance" to the factory settings. "Adv. Contrast Enhancer": Automatically adjusts "Backlight" and "Picture" to the most suitable settings judging from the brightness of the screen. This setting is especially effective for dark images scenes, and will increase the contrast distinction of the darker picture scenes. "Black Corrector": Enhances black areas of the picture for stronger contrast. "Gamma": Adjusts the balance between bright and dark areas of the picture. "Clear White": Emphasises white colours. "Live Colour": Makes colours more vivid. "White Balance": Adjusts the temperature of each colour. **Ambient Sensor** Automatically optimises colour temperature and brightness of the picture according to ambient light. **Intelligent Picture** "Intelligent Picture Plus" Plus Set-up Allows you to improve the picture when viewing TV programme or video input. The options that can be selected differ depending on the "Scene Select" settings.

#### "Signal Level Indicator"

Turns on/off the "Signal Level Indicator" feature. When "On" is selected, the signal level bar will be displayed when you select a channel or video input.

#### "Picture Optimisation"

41) Sound

Allows you to enhance the picture to your preferred settings.

"Crisp": For a sharper image with more visible noise.

"Smooth": For a softer image with less visible noise.

)) Sound	
Sound Mode	Sets a sound mode. The options that can be selected differ depending on the "Scene Select" settings.  "Dynamic": Enhances treble and bass. Recommended for home entertainment.  "Standard": For standard sound.  "Clear Voice": Makes voice sound clearer.
Reset	Resets all the "Sound" settings except "Sound Mode", "Dual Sound", "Speaker" and "Audio Out" to the factory settings.
7 Band Equalizer	Adjusts sound frequency settings.  Press ⇔/⇒ to select the desired sound frequency, then press �/₺ to adjust the setting and press ⊕. The adjusted settings will be received when you select "Sound Mode" options. Selecting "Reset" will set the "7 Band Equalizer" to original settings.  ✓ Adjusting higher frequency will affect higher pitched sound and adjusting lower frequency will affect lower pitched sound.
Balance	Emphasises left or right speaker balance.
Intelligent Volume	Minimizes the difference in volume level between all programmes and adverts (e.g. adverts tend to be louder than programmes).
Volume Offset	Adjusts the volume level of the current input relative to other inputs.
Surround	Allows you to select the suitable surround effects depending on the genre of TV programme (movie, sport, music, etc.) or video game.  The options that can be selected differ depending on the "Scene Select" settings.  "On": Delivers surround effects that help you enjoy the virtual two-ch surround audio with just the two internal TV speakers.  "Simulated Stereo": Adds a surround-like effect to mono programmes.  "Cinema": Delivers surround effects just like the high-grade audio systems found in movie theatres.

	<ul> <li>"Music": Delivers surround effects that make you feel like you are surrounded by sound as in a music hall.</li> <li>"Sports": Delivers surround effects that make you feel like you are watching a live sports contest.</li> <li>"Game": Delivers surround effects that enhance game sound.</li> <li>"Off": Converts and reproduces multi-ch audio to 2ch audio. In the case of other audio formats, the original audio is reproduced.</li> </ul>
Dual Sound	Sets the sound from the speaker for a stereo or bilingual broadcast.  "Stereo"/"Mono": For stereo broadcasts.  "Main"/"Sub"/"Mono": For bilingual broadcasts, select "Main" for sound channel 1,  "Sub" for sound channel 2, or "Mono" for mono channel, if available.  • If the signal is very weak, the sound becomes monaural automatically.  • If the stereo sound is noisy when receiving a NICAM programme, select "Mono". The sound becomes monaural, but the noise is reduced.  • The "Dual Sound" setting is memorised for each programme position.  • You cannot listen to stereo broadcast sound when "Mono" is selected.  Tyou select other equipment connected to the TV, set "Dual Sound" to "Stereo", "Main" or "Sub". However, when the external equipment connected to the HDMI jack (except HDMI 2) is selected, this is fixed to "Stereo".
Speaker	"TV Speaker": Turns on and outputs the TV's sound from the TV speakers.  "Audio System": Turns off the TV speakers and outputs the TV's sound from external audio equipment connected to the audio output jacks on the TV.  You can also turn on the connected equipment that is compatible with Control for HDMI, after making the appropriate settings of Control for HDMI.
Audio Out	"Variable": When using an external audio system, volume output from audio out can be controlled using the TV's remote.  "Fixed": The audio output of the TV is fixed. Use your audio receiver's volume control to adjust the volume (and other audio settings) through your audio system.
<b>⇔</b> Screen	
Wide Mode	For details about wide mode, see page 11.
Auto Wide	Automatically changes the wide mode according to the input signal from an external equipment. To keep your setting, select "Off".  "Auto Wide" is only available when watching programmes from video input, HDMI and component input in format 480i or 576i. "Even if "Auto Wide" is set to "On" or "Off", you can always modify the format of the screen by pressing ## repeatedly.
4:3 Default	Selects the default screen mode for use with 4:3 broadcasts.  "Wide Zoom": Enlarges the 4:3 picture to fill the 16:9 screen, keeping the original image as much as possible.  "Normal": Displays conventional 4:3 broadcasts in the correct proportions.  "Off": Keeps the current "Wide Mode" setting when the channel or input is changed.
Auto Display Area	<ul><li>"On": Automatically adjusts the display area based upon the content.</li><li>"Off": Turns off the "Auto Display Area". Choose one from the "Display Area" options.</li></ul>
Display Area	Adjusts the picture display area.  "Full Pixel": Displays the picture for 1080/50i, 1080/60i, 1080/50p and 1080/60p sources (HDMI or component input only) or 1080/24p sources (HDMI input only) in the original size. (Available depending on the TV model.)  "+1": Displays pictures in their original size.  "Normal": Displays pictures in their recommended size.  "-1": Enlarges the picture so that the edges are outside the visible display area.

Adjusts the horizontal position of the picture when "Wide Mode" is set to "Wide Zoom" or "Zoom".

**Horizontal Shift** 

# Vertical Shift Adjusts the vertical position of the picture when "Wide Mode" is set to "Wide Zoom" or "Zoom".

#### **PC Settings**

#### "Wide Mode"

Selects a screen mode for displaying input from your PC, see page 11.

#### "Reset"

Resets all the "PC Settings" except "Wide Mode" to the factory settings.

#### "Auto Adjustment"

Automatically adjusts the display position, phase and pitch of the picture when the TV receives an input signal from the connected PC.

"Auto Adjustment" may not work well with certain input signals. In such cases, manually adjust "Phase", "Pitch", "Horizontal Shift" and "Vertical Shift".

#### "Phase"

Adjusts the phase when the screen flickers.

#### "Pitch"

Adjusts the pitch when the picture has unwanted vertical stripes.

#### "Horizontal Shift"

Adjusts the horizontal position of the picture.

#### "Vertical Shift"

Adjusts the vertical position of the picture.

#### PC input signal reference chart for - PC and HDMI IN 1, 2, 3, 4

Resolutio	n			Horizontal	Vertical	
Signals	Horizontal (Pixel)	×	Vertical (Line)	frequency (kHz)	frequency (Hz)	Standard
VGA	640	×	480	31.5	60	VESA
	640	×	480	37.5	75	VESA
	720	×	400	31.5	70	VESA
SVGA	800	×	600	37.9	60	VESA
	800	×	600	46.9	75	VESA
XGA	1024	×	768	48.4	60	VESA
	1024	×	768	56.5	70	VESA
	1024	×	768	60.0	75	VESA
WXGA	1280	×	720	45.0	60	EIA
	1280	×	768	47.4	60	VESA
	1280	×	768	47.8	60	VESA
	1280	×	960	60.0	60	VESA
	1360	×	768	47.7	60	VESA
SXGA**	1280	×	1024	64.0	60	VESA
HDTV**	1920	×	1080	66.6	60	VESA*
	1920	×	1080	67.5	60	EIA*

<sup>\* 1080</sup>p timing when applied to the HDMI input will be treated as a video timing and not a PC timing. This affects the "Screen" menu settings.

<sup>\*\*</sup>You cannot display resolutions higher than your TV's display resolution (page 31 and back cover).

This TV's PC input does not support Sync on Green or Composite Sync.

<sup>•</sup> This TV's PC input does not support interlaced signals.

If input signal is not shown in above chart, then this signal may not be displayed properly or cannot be displayed according
to your settings.

<sup>•</sup> For the best picture quality, it is recommended to use the signals (boldfaced) in the above chart with a 60 Hz vertical frequency from a personal computer. In plug and play, signals with a 60 Hz vertical frequency will be selected automatically

# Channel Set-up

1 Digit Direct	When "1 Digit Direct" is set to "On", you can select a channel using one preset number button ( <b>0-9</b> ) on the remote.  Description:  When "1 Digit Direct" is set to "On", you cannot select channel numbers 10 and above entering next digit using the remote.
Auto Tuning	Tunes in all the available channels. This option allows you to retune the TV after moving house, or to search for new channels that have been launched by broadcasters.
Programme Sorting	Changes the order in which the channels are stored on the TV.  1 Press 分/♥ to select the channel you want to move to a new position, then press ⊕.  2 Press 分/♥ to select the new position for your channel, then press ⊕.
Programme Labels	Assigns a channel name of your choice up to seven letters or numbers.  1 Press �/♥ to select the channel you want to name, then press ⊕.  2 Press �/♥ to select the desired letter or number ("_" for a blank space), then press ♣.  If you input a wrong character  Press �/♦ to select the wrong character. Then, press �/♥ to select the correct character.  To delete all the characters  Select "Reset", then press ⊕.  3 Repeat the procedure in step 2 until the name is completed, then press ⊕.
Manual Programme Preset	Before selecting "Label"/"AFT"/"Audio Filter"/"Skip"/"Colour System"/"Signal Booster", press <b>PROG +/</b> — to select the programme number with the channel. You cannot select a programme number that is set to "Skip" (page 23).  " <b>Programme"/"TV System"/"VHF/UHF"</b> Presets programme channels manually.  1 Select "Programme", then press ⊕.  2 Press �/♥ to select the programme number you want to manually tune (if tuning a

- 2 Press 상/ to select the programme number you want to manually tune (if tuning a VCR, select channel 0), then press **RETURN**.
- **3** Press �/♥ to select "TV System", then press ⊕.
- **4** Press �/♥ to select your TV broadcast systems, then press ⊕.
- **5** Press  $\diamondsuit$ / $\diamondsuit$  to go to the frequency range indication ("VHF Low", "VHF High" or "UHF"), then press ⊕.
- **6** Tune the channels as follows:

Press  $\Leftrightarrow$ / $\Leftrightarrow$  to search for the next available channel. When a channel has been found, the search will stop. To continue searching, press  $\Leftrightarrow$ / $\Leftrightarrow$ .

Repeat the procedure above to preset other channels manually.

#### "Label"

Assigns a name of your choice, up to seven letters or numbers, to the selected channel. To input characters:

1 Press �/♥ to select the desired letter or number ("\_" for a blank space), then press ♣

#### If you input a wrong character

Press ♦/♦ to select the wrong character. Then, press �/♦ to select the correct character

**2** Repeat the procedure in step 1 until the name is completed, then press  $\oplus$ .

#### " A ET"

Allows you to fine-tune the selected channel manually. When "On" is selected, the fine tuning is performed automatically.

#### "Audio Filter"

Improves the sound of individual channels when distortion occurs in mono broadcasts in TV system "B/G", "I" and "D/K".

• You cannot receive stereo or dual sound when "High" is selected.

#### "Skip"

Skips unused channels when you press **PROG +/-** to select channels. (You can still select a skipped channel using the number buttons.)

#### "Colour System"

Selects the colour system ("Auto", "PAL", "SECAM", "NTSC3.58", "NTSC4.43" or "PAL60") according to the channel.

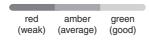
#### "Signal Booster" (Intelligent Signal Booster)

Improves the picture quality if the TV signal is too strong or weak.

Press  $\triangle/\nabla$  to select either "Off" if the signal is too strong (picture distorted; picture with lines; signal interference) or "Auto" if the signal is weak (snowy picture), then press  $\oplus$ .

#### "Signal Level"

Displays the signal level for programme currently being watched.



# Parental Lock

PIN Code	Allows you to set up TV to block channel or external input. Use <b>0-9</b> on the remote to enter a four-digit PIN code.
Change PIN Code	Selects to change your PIN code.
Programme Block	Blocks an individual channel from being watched. To view a blocked channel, select "Unblocked".
External Input Lock	Locks an external input from being watched. To view a blocked external input, select "Unblocked".

Entering the correct PIN code for blocked channel or external input will temporarily deactivates the "Parental Lock" feature. To reactivate the "Parental Lock" settings, turn off and on the TV.
 If you lost your PIN code, see page 30.

Set-up	
USB Auto Start	Automatically enter photo thumbnail view when the TV is turned on and a digital still camera or other device storing photo files is connected to the USB port then turned on.
Favourites	Allows you to set your favourite channels and/or external input by assigning the desired channel numbers and/or external input.  To watch a channel or external input  Press �/\varphi to select the channel number or external input, then press \(\oplus\).  To turn off the Favourite list  Press RETURN to return to the previous screen.  Add a current channel or external input to the Favourite list  Press �/\varphi to select "Add to Favourites", then press \(\oplus\).  ** When you continue to add items beyond the 10th item, the bottom item in the list will be automatically removed from the Favourite list.

#### **Timer Settings**

Sets the timer to turn on/off the TV.

#### "Sleep Timer"

Sets the TV to automatically switch to standby mode after a certain amount of time.

• If you turn off the TV and turn it on again, "Sleep Timer" is reset to "Off".

#### "On Timer"

Sets the TV to automatically turn on from standby mode.

#### "Clock Set"

Allows you to adjust the clock manually.

• "Clock Set" will automatically reset when you turn off the AC power.

When the "Sleep Timer" or "On Timer" is activated, the (Timer) indicator on the TV front panel lights up in amber.

#### **AV Set-up**

#### "Video Labels"

Assigns a name to any equipment connected to the side and rear jacks. The name will be displayed briefly on the screen when the equipment is selected.

**1** Press  $\mathcal{O}/\mathcal{O}$  to select the desired input source, then press  $\oplus$ .

**2** Press  $\Phi/\Phi$  to select the desired option below, then press  $\oplus$ .

**Equipment labels:** Uses one of the preset labels to assign a name to connected equipment.

"Edit": Creates your own label. Follow steps 2 to 3 of "Programme Labels" (page 22).

"Skip": Skips an unnecessary input source.

#### "Colour System"

Selects the colour system ("Auto", "PAL", "SECAM", "NTSC3.58", "NTSC4.43" or "PAL60") according to the composite video signal from the input source.

#### "Video 1 Input/Output"

Switches the video jack  $\Leftrightarrow$  1 and audio jack  $\Leftrightarrow$  1 between input and output modes. When set to "Output", outputs whatever is being viewed on the screen (except signals from the  $\Leftarrow$  / $\Leftrightarrow$  , HDMI IN 1, 2, 3 or 4 and  $\Leftarrow$  / $\Leftrightarrow$  PC IN jacks).

#### "Video 3/Component Input"

Select "Auto" to have the TV detect and switch between the component video jack or the video jack 3 when component video jack or video jack 3 is connected.

✓ You cannot use the component video jack → and the video jack → 3 at the same time.

#### **HDMI Set-up**

Allows the TV to communicate with equipment that is compatible with the Control for HDMI function, and connected to the HDMI jacks of the TV. Note that communication settings must also be made on the connected equipment.

#### "Control for HDMI"

Sets whether or not to link the operations of the TV and the connected equipment that is compatible with Control for HDMI. When set to "On", the following functions are available.

If the specific Sony equipment that is compatible with Control for HDMI is connected, this setting is applied to the connected equipment automatically when the "Control for HDMI" is set to "On" using the TV.

#### "Auto Devices Off"

When this is set to "On", the connected equipment that is compatible with Control for HDMI turns off when you turn off the TV by remote.

#### "Auto TV On"

When this is set to "On", the TV turns on when you turn on the connected equipment that is compatible with Control for HDMI.

#### "HDMI Device List"

Displays a list of connected equipment that is compatible with Control for HDMI. Selects "Enable" to update the "HDMI Device List".

#### "Device Control Keys"

Select button functions of the TV's remote control to operate the connected equipment. "Normal": For basic operations, such as navigation buttons (up, down, left or right, etc).

"Tuning Keys": For basic operations and operation of channel-related buttons, such as **PROG** +/- or number buttons (**0-9**), etc. Useful when you control a tuner or set-top box, etc; via the remote control.

**"Menu Keys":** For basic operations and operation of the **MENU/TOOLS** buttons. Useful when you select menus of a BD player, etc; via the remote control.

**"Tuning and Menu Keys":** For basic operations and operation of channel-related buttons and **MENU/TOOLS** buttons.

- You cannot use "Control for HDMI" if the TV operations are linked to the operations of an audio system that is compatible with Control for HDMI.
  - Some equipment with "Control for HDMI" does not support the "Device Control" feature.

	Some equipment with Control 12 112 and account support the 20 1100 Control 10 112 112
Auto Start-up	Starts the initial set-up procedure (page 6). This option allows you to retune the TV after moving house, or to search for new channels that have been launched by broadcasters.
Language	Selects the language in which the menus are displayed.
Product Information	Displays your TV's product information.
Factory Settings	Resets all settings to factory settings. After completing this process, the initial set-up screen is displayed.  Be sure not to turn the TV off during this period (it takes about 30 seconds) or press any buttons.

C Eco	
Power Saving	Reduces power consumption of the TV by adjusting the backlight.  When you select "Picture Off", the picture is switched off, and the  (Picture Off) indicator on the TV front panel lights up in green. The sound remains unchanged.
Idle TV Standby	Turns the TV off after it has been kept idle for the preset length of time.
PC Power Management	Switches the TV to standby mode when the TV receives no signal from the PC input source for 30 seconds.

# **Additional Information**

## Installing the accessories (Wall-Mount Bracket)

#### To Customers:

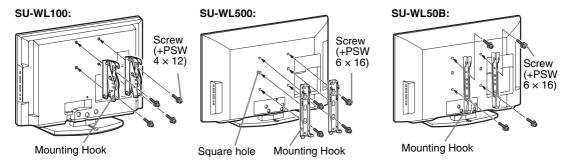
For product protection and safety reasons, Sony strongly recommends that installing of your TV be performed by Sony dealers or licensed contractors. Do not attempt to install it yourself.

#### **To Sony Dealers and Contractors:**

Provide full attention to safety during the installation, periodic maintenance and examination of this product.

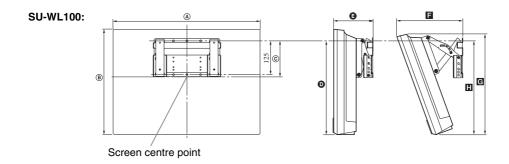
Your TV can be installed using the Wall-Mount Bracket SU-WL500, SU-WL50B or SU-WL100 (sold separately).

- Refer to the Instructions supplied with the Wall-Mount Bracket to properly carry out the installation.
- Refer to "Detaching the stand from the TV" (page 7).
- Place the TV on the stand, when securing the Mounting Hook.



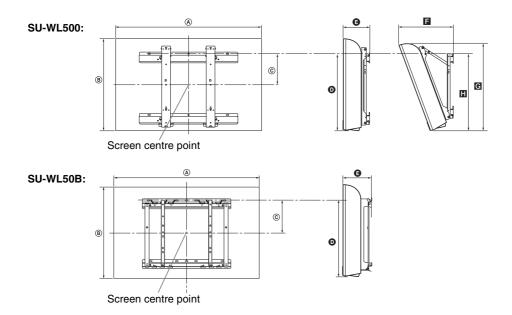
Sufficient expertise is required for installing these products, especially to determine the strength of the wall for withstanding the TV's weight. Be sure to entrust the attachment of these products to the wall to Sony dealers or licensed contractors and pay adequate attention to safety during the installation. Sony is not liable for any damage or injury caused by mishandling or improper installation.

#### TV installation dimensions table



Unit: mm

	Display dimensions		Screen centre	Length for each mounting angle					
Model name			dimension	Angl	Angle (20°)				
	A	B	©	0	•	E	G		
KLV-26EX300	672	423	97	315	160	262	402	323	
KLV-26NX400	683	436	97	318	156	264	413	328	
KLV-22EX300	551	367	133	329	143	222	348	328	



Unit: mm

	- 1: - 7		Screen	centre	Length for each mounting angle						
	dimer	sions	dimension		Angle (0°)				А	ngle (20	l°)
Model name	(A)	В	(	(		0		•	E	G	
	(8)	Ф	SU- WL500	SU- WL50B	SU- WL500	SU- WL50B	SU- WL500	SU- WL50B	su	J-WL500 o	nly
KLV-55EX500	1324	795	25	78	428	481	165	166	413	752	466
KLV-46EX500	1127	676	84	137	426	478	161	162	369	640	463
KLV-46EX400	1127	674	84	137	424	478	162	162	369	640	464
KLV-40EX600	952	581	133	160	431	459	120	121	297	546	454
KLV-40EX500	992	599	122	175	426	479	159	160	341	567	463
KLV-40EX400	992	598	122	175	425	478	160	161	341	567	463
KLV-40NX500	1023	628	122	175	439	492	160	160	349	591	479
KLV-32EX600	764	475	185	213	431	459	120	121	260	473	454
KLV-32EX500	800	497	172	200	497	454	156	157	303	470	461
KLV-32EX400/ KLV-32EX300	800	497	172	200	426	454	157	158	303	470	461
KLV-32NX500	825	517	172	200	432	429	156	157	309	488	471
KLV-32NX400	825	517	172	-	432	-	156	-	309	488	471

Figures in the above table may differ slightly depending on the installation.

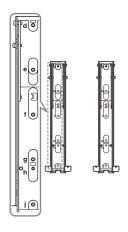
#### **WARNING**

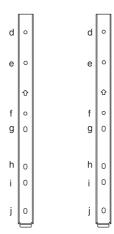
The wall that the TV will be installed on should be capable of supporting a weight of at least four times that of the TV. Refer to "Specifications" for its weight.

## Screw and hook locations diagram/table

**Screw location** - When installing the Mounting Hook on the TV.

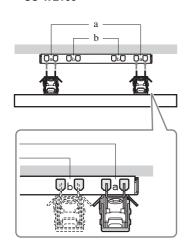


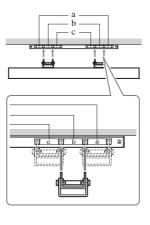


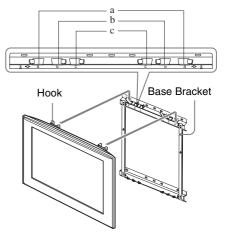


 $\mbox{\bf Hook location}$  - When installing the TV onto the Base Bracket.

SU-WL100 SU-WL500 SU-WL50B







Model name	Screw I	ocation	Hook location	
Model Hame	SU-WL500	SU-WL50B	SU-WL500	SU-WL50B
KLV-55EX500	d, g	d, i	í	3
KLV-46/40EX500/ KLV-46/40EX400/ KLV-40NX500	d, g	d, i	ı	)
KLV-40EX600	е	, j	b	
KLV-32EX600	f, j		С	
KLV-32EX500/ KLV-32EX400/ KLV-32EX300/ KLV-32NX500	e, g	e, h	•	:
KLV-32NX400	e, g	_	С	_
	SU-W	/L100		
KLV-26EX300/KLV-26NX400				3
KLV-22EX300			I	)

## **Troubleshooting**

Check whether the  $\overset{(1)}{\cup}$  (standby) indicator is flashing in red.

#### When it is flashing

The self-diagnosis function is activated.

- Count how many times the () (standby) indicator flashes between each three second break.
  - For example, the indicator flashes three times, then there is a three second break, followed by another three flashes, etc.
- 2 Press (b) on the TV to turn it off, disconnect the AC power cord, and inform your dealer or Sony service centre of how the indicator flashes (number of flashes).

#### When it is not flashing

- 1 Check the items listed below.
- 2 If the problem still persists, have your TV serviced by qualified service personnel.

#### **Picture**

#### No picture (screen is dark) and no sound

- · Check the antenna/cable connection.
- Connect the TV to the AC power outlet, and press (b) on the TV.

# No picture or no menu information from equipment connected to the video input jack appears on the screen

- Press to display the connected equipment list, then select the desired input.
- Check the connection between the optional equipment and the TV

#### Double images or ghosting

• Check the antenna/cable connection, location or direction.

#### Only snow and noise appear on the screen

- Check if the antenna is broken or bent.
- Check if the antenna has reached the end of its serviceable life (three to five years in normal use, one to two years at the seaside).

#### Distorted picture (dotted lines or stripes)

- Keep the TV away from electrical noise sources such as cars, motorcycles, hair-dryers or optional equipment.
- When installing optional equipment, leave some space between the optional equipment and the TV.
- · Check the antenna/cable connection.
- Keep the antenna cable away from other connecting cables

#### Picture or sound noise when viewing a TV channel

• Adjust "AFT" (Automatic Fine Tuning) to obtain better picture reception (page 22).

# Some tiny black points and/or bright points appear on the screen

 The picture of a display unit is composed of pixels. Tiny black points and/or bright points (pixels) on the screen do not indicate a malfunction.

#### Picture contours are distorted

- Select "Standard" or "Off" in "Motionflow" (page 18) (For KLV-55/46/40/32EX500).
- Change the current setting of "Cinema Drive" to other settings (page 18).

#### No colour on programmes

• Select "Reset" (page 18).

#### 

# No picture from the connected equipment appears on the screen

- Turn the connected equipment on.
- Check the cable connection.
- Press to display the connected equipment list, then select the desired input.
- Correctly insert the memory card or other storage device in the digital still camera.
- Use a digital still camera memory card or other storage device that has been formatted according to the instruction manual supplied with the digital still camera.
- Operations are not guaranteed for all USB devices. Also, operations differ depending on the features of the USB device and the video being played.

# Cannot select the connected equipment on the menu or cannot switch the input

· Check the cable connection.

#### Sound

#### No sound, but good picture

- Press ∠ +/- or ® (Mute).
- Check if the "Speaker" is set to "TV Speaker" (page 20).

#### No sound or noisy sound

• Check if the TV system setting is appropriate (page 22).

#### Channels

#### Some channels are blank

- The channel is for scrambled/subscription service only. Subscribe to a pay TV service.
- The channel is used only for data (no picture or sound).
- Contact the broadcaster for transmission details.

#### General

# The TV turns off automatically (the TV enters standby mode)

- Check if the "Sleep Timer" is activated, or confirm the "Duration" setting of "On Timer" (page 24).
- Check if the "Idle TV Standby" is activated (page 25).

#### The TV turns on automatically

• Check if the "On Timer" is activated (page 24).

#### Some input sources cannot be selected

 Select "Video Labels" and cancel "Skip" of the input source (page 24).

#### The remote does not function

Replace the batteries.

# HDMI equipment does not appear on "HDMI Device List"

 Check that your equipment is compatible with Control for HDMI

#### Cannot select "Off" in "Control for HDMI"

If you have connected any audio system that is compatible
with Control for HDMI, you cannot select "Off" in this
menu. To change the audio output to the TV speaker,
select "TV Speaker" in the "Speaker" menu (page 20).

#### Lost password

 Select the "PIN Code" settings on the "Parental Lock" settings, then enter the following master password: 9999.
 This password clears your previous password and allows you to enter a new password (page 23).

# **Specifications**

Model name	KLV-55EX500		KLV-40EX500 KLV-40EX400	KLV-32EX600 KLV-32EX500 KLV-32EX400 KLV-32EX300 KLV-32NX500 KLV-32NX400		KLV-22EX300	
System							
Panel system	LCD (Liquid Cry	stal Display) Pane	1				
TV system	B/G, I, D/K, M						
Colour/video system	PAL, PAL60 (on	ly video input), SE	ECAM, NTSC4.43	(only video input	), NTSC3.58		
Channel coverage	B/G: VHF: E2 to E12/ UHF: E21 to E69/ CATV: S01 to S03, S1 to S41 I: UHF: B21 to B69/ CATV: S01 to S03, S1 to S41 D/K: VHF: C1 to C12, R1 to R12/ UHF: C13 to C57, R21 to R60/ CATV: S01 to S03, S1 to S41, Z1 to Z39 M: VHF: A2 to A13/ UHF: A14 to A79/ CATV: A8 to A2, A to W+4, W+6 to W+84						
Sound output		10 W -	+ 10 W		8 W + 8 W	5 W + 5 W	
Input/Output jacks							
Antenna	75 ohm external t	erminal for VHF/	UHF				
<b>↔</b> 1	Video input (pho	no jacks)/Monitor	out				
<b>€</b> →1	Audio input (pho	no jacks)/Monitor	out				
<b>→</b> 2	Video input (pho	no jack)					
<b>→</b> 2	Audio input (pho	no jacks)					
← COMPONENT IN/ → 3		s: 1080p, 1080i, 7 ms, 0.3V negative		80p, 480i /p-p, 75 ohms/Pr/0	Cr: 0.7 Vp-p, 75 o	hms	
→ COMPONENT IN	Audio input (pho	no jacks)					
HDMI IN 1, 2, 3, 4	Video: 1080/24p, 1080p, 1080i, 720p, 576p, 576i, 480p, 480i Audio: Two channel linear PCM: 32, 44.1 and 48 kHz, 16, 20 and 24 bits  ← Analogue audio input (minijack) (HDMI IN 2 only) PC Input (see page 21)						
PC IN →	PC Input (D-sub 15-pin) (see page 21) G: 0.7 Vp-p, 75 ohms, non Sync on Green/B: 0.7 Vp-p, 75 ohms/ R: 0.7 Vp-p, 75 ohms/HD: 1-5 Vp-p/VD: 1-5 Vp-p						
PC IN →	PC audio input (r	ninijack)	·	·	·	·	
ψ 	USB port						
0	Headphones jack						

Power and ot	hers	KLV-55EX500	KLV-46EX500	KLV-46EX400	KLV-40EX600	KLV-40EX500	KLV-40EX400		
Power requirem	ents		110–240 V AC, 50/60 Hz 220–240 V AC, 50/60 Hz (South Africa and Tunisia only)						
Screen size (measured	inches	55	4	16		40			
diagonally)	cm (Approx.)	138.8	11	6.8		101.6			
Display resolution	on	1,920 pixels (hor	izontal) x 1,080 lir	nes (vertical)					
Power consump	tion	Indicated on the rear of the TV.							
Dimensions (Approx.)	with stand (mm)	1324 × 832 × 350	1127 × 713 × 281	1127 × 711 × 294	952 × 613 × 250	992 × 636 × 260	992 × 635 × 250		
$(\mathbf{w} \times \mathbf{h} \times \mathbf{d})$	without stand (mm)	1324 × 795 × 105	1127 × 676 × 101	1127 × 674 × 102	952 × 581 × 74	992 × 599 × 99	992 × 598 × 100		
Mass (Approx.)	with stand (kg)	30.7	21.6	20.4	14.9	16.4	15.9		
	without stand (kg)	26.7	18.7	18.1	12.7	14.2	13.9		
Optional accessories	Wall-Mount Bracket	SU-WL500 or SU-WL50B							

Power and others		KLV-40NX500	KLV-32EX600	KLV-32EX500	KLV-32EX400	KLV-32EX300			
Power requirement	ents	110-240 V AC, 50/6 220-240 V AC, 50/6	0 Hz 0 Hz (South Africa ar	nd Tunisia only)					
Screen size (measured	inches	40		3:	2				
diagonally)	cm (Approx.)	101.6		80.1		80.0			
Display resolution	on	1,366 p 1,920 pixels (horizontal) x 1,080 lines (vertical)  (horizontal lines (vertical)							
Power consump	tion	Indicated on the rear of the TV.							
Dimensions (Approx.)	with stand (mm)	1023 × 665 × 310	764 × 507 × 250	800 × 534 × 250	800 × 5.	32 × 220			
$(\mathbf{w} \times \mathbf{h} \times \mathbf{d})$	without stand (mm)	1023 × 628 × 100	764 × 475 × 73	800 × 497 × 96	800 × 4	197 × 97			
Mass (Approx.)	with stand (kg)	22.4	11.1	11.9	11.0				
	without stand (kg) 19.2 9.1 9.9		9.5						
Optional accessories	Wall-Mount Bracket	SU-WL500 or SU-WL50B							

Power and ot	hers	KLV-32NX500	KLV-32NX400	KLV-26EX300	KLV-26NX400	KLV-22EX300		
Power requirements 110–240 V AC, 50/60 Hz 220–240 V AC, 50/60 Hz (South Africa and Tunisia only)								
Screen size (measured	inches	3	32	2	6	22		
diagonally)	cm (Approx.)	80.1	80.0	66	5.1	54.8		
Display resolution  1,920 pixels (horizontal) x 1,080 lines (vertical)  1,366 pixels (horizontal)				ıl) x 768 lines (vertica	1)			
Power consump	tion	Indicated on the rear of the TV.						
Dimensions (Approx.)	with stand (mm)	825 × 5.	54 × 260	672 × 459 × 220	683 × 477 × 260	551 × 402 × 215		
$(\mathbf{w} \times \mathbf{h} \times \mathbf{d})$	without stand (mm)	825 × 5	17 × 102	672 × 423 × 99	683 × 436 × 98	551 × 367 × 82		
Mass (Approx.)	with stand (kg)	15.5		8.8	11.4	6.6		
	without stand (kg)	13.0		7.3	8.9	6.0		
Optional accessories	Wall-Mount Bracket	SU-WL500 or SU-WL50B	SU-WL500	SU-WL500 SU-WL100				

Design and specifications are subject to change without notice.

Instructions on "Installing the Wall-Mount Bracket" are not supplied in the form of a separate leaflet with this TV. These installation instructions are included within this TV's instructions manual.

Printed on 70% or more recycled paper using VOC (Volatile Organic Compound)-free vegetable oil based ink.





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